

SEQUENCE LISTING

<110> Eiken Kagaku Kabushiki Kaisha

70900
<120> Method of Synthesizing Nucleic Acid.

<130> E2-001PCT

<140>

<141>

<150> JP-1998-317476

<151> 1998-11-09

<160> 29

<170> PatentIn Ver. 2.0

<210> 1

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

90

<400> 1

cgactctaga ggatccccgg gtactttttg ttgtgtggaa ttgtgagcgg at

52

<210> 2

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 2

acaacgtcgt gactgggaaa accctttttg tgcgggcctc ttcgctatta c

51

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 3

actttatgct tccggctcgt a

21

<210> 4

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 4

gttgggaagg gcgatcg

17

<210> 5

<211> 600

<212> DNA

<213> Bacteriophage M13mp18

<400> 5

gcgcccataa cgcaaaccgc ctctccccgc gcgttggccg attcattaat gcagctggca 60
cgacaggttt cccgactgga aagcgggcag tgagcgcaac gcaattaatg tgagttagct 120
cactcattag gcaccccagg ctttacactt tatgcttccg gctcgtatgt tgtgtggaat 180
tgtgagcgga taacaatttc acacaggaaa cagctatgac catgattacg aattcgagct 240
cggtacccgg ggatccicta gagtcgacct gcaggcatgc aagcttggca ctggccgtcg 300
ttttacaacg tcgtgactgg gaaaaccctg gcgttaccca acttaatcgc cttgcagcac 360

92

atcccccttt cgccagctgg cglaatagcg aagaggcccg caccgatcg ccttcccaac 420
 agttgcgcag cctgaatggc gaatggcgct ttgcctgggt tccggcacca gaagcgggtgc 480
 cggaaagctg gctggagtgc gatcttcctg aggccgatac ggicgtcgtc ccctcaaact 540
 ggcagatgca cggttacgat gcgcccattc acaccaacgt aacctatccc attacgggtca 600

<210> 6

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized primer sequence

<400> 6

ctcttccaaa agtaaggcag gaaatgtgaa accagatcgt aatttggaag acccagcattc 60
 cag 63

<210> 7

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized primer sequence

93

<400> 7

gtggattcgc actcctcccg ctgattcgga cctgcctcgt cgt

43

<210> 8

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 8

gccacctggg tgggaa

16

<210> 9

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 9

94

ggcgagggag ttcttcttct ag

22

<210> 10

<211> 430

<212> DNA

<213> Hepatitis B virus

<400> 10

ctccttgaca ccgcctctgc tctgtatcgg gaggccttag agtcctccgga acattgttca 60
cctcaccata cagcactcag gcaagctatt ctgtgttggg gtgagttaat gaatctggcc 120
acctgggtgg gaagtaattt ggaagacca gcatccaggg aattagtagt cagctaigtc 180
aatgttaata tgggcctaaa aatcagacaa ctattgtggt ttcacatttc ctgccttact 240
tttgggaagag aaactgtttt ggagtatttg gtatcttttg gagtgtggat tcgcactcct 300
cccgttaca gaccacaaa tgcccctatc ttatcaacac ttccggaaac tactgttggt 360
agacgacgag gcaggtcccc tagaagaaga actccctcgc ctgcagacg aaggctctca 420
tcgccgcgtc 430

<210> 11

<211> 293

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 11

acaacgtcgt gactgggaaa accctttttg tgcgggcctc ttcgctatta cgccagctgg 60
 cgaaaggggg atgtgctgca aggcgattaa gtggggtaac gccagggttt tcccagtcac 120
 gacgttgtaa aacgacggcc agtgccaagc ttgcatgcct gcaggtcgac tctagaggat 180
 ccccggttac cgagctcgaa ttcgtaatca tggcatagc tgtttcctgt gtgaaattgt 240
 tatccgtca caattccaca caacaaaaag taccgggga tctctagag tcg 293

<210> 12

<211> 293

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

<400> 12

cgactctaga ggatccccgg gtactttttg ttgtgtggaa ttgtgagcgg ataacaattt 60
 cacacaggaa acagctatga ccatgattac gaattcgagc tcggtaccgg gggatcctct 120
 agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtcgtgactg 180
 ggaaaaccct ggcgttaccc aacttaatcg ccttgcagca catccccctt tcgccagctg 240
 gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgt 293

<210> 13

<211> 459

<212> DNA

96

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 13

acaacgtcgt gactgggaaa accctttttg tgcgggcctc ttcgctatta cgccagctgg 60
cgaaaggggg atgtgctgca aggcgattaa gttgggtaac gccagggttt tcccagtcac 120
gacgttgtaa aacgacggcc agtgccaagc ttgcatgcct gcaggtcgac tctagaggat 180
ccccgggtac cgagctcgaa ttcglaatca tggtcatagc tgtttcctgt gtgaaattgt 240
tatccgctca caattccaca caacaaaaag taccggggga tcctctagag tcgacctgca 300
ggcatgcaag cttaggcactg gccgtcggtt tacaacgtcg tgactgggaa aaccctggcg 360
ttaccaact taatgcctt gcagcacatc cccctttcgc cagctggcgt aatagcgaag 420
aggcccgcac aaaaagggtt tcccagtcac cgacgttgt 459

<210> 14

<211> 458

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 14

97

cgactctaga ggatccccgg giactttttg ttgtgtggaa ttgtgagcgg ataacaattt 60
cacacaggaa acagctatga ccatgattac gaattcgagc tgggtaccgg gggatcctct 120
agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtcgtgactg 180
ggaaaaccct ggcgttacct aacttaatcg ccttgcagca catccccctt tgcgcagctg 240
gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgtaaaacga 300
cggccagtgc caagcttgca tgcctgcagg tgcactctag aggatccccg ggtaccgagc 360
tcgaattcgt aatcatggtc atagctgttt cctgtgtgaa attgttatcc gctcacaatt 420
ccacacaaca aaaagtacct ggggatccct tagagtcg 458

<210> 15

<211> 790

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 15

acaacgtcgt gactgggaaa accctttttg tgcgggccctc ttcgctatta cgccagctgg 60
cgaaaggggg atgtgctgca aggcgattaa gttagggtaac gccagggttt tcccagtcac 120
gacgttgtaa aacgacggcc agtgccaagc ttgcatgcct gcaggtcgac tctagaggat 180
ccccgggtac cgagctcgaa ttcgtaatca tggatcatagc tgtttcctgt gtgaaattgt 240
tatccgctca caattccaca caacaaaaag taccggggga tctctagag tcgacctgca 300
ggcatgcaag cttaggcactg gccgtcgttt tacaacgtcg tgactgggaa aacctggcg 360
ttaccaact taatgcctt gcagcacatc cccctttcgc cagctggcgt aatagcgaag 420

98

aggcccgac aaaaagggtt ttcccagica cgacgttgta aaacgacggc cagtgccaag 480
 ctltgatgcc tgcaggtcga ctctagagga tccccgggta ctttttgttg tgtggaattg 540
 tgagcggata acaatttcac acaggaaaca gctatgacca tgattacgaa ttcgagctcg 600
 gtacccgggg atcctctaga gtgcacctgc aggcatgcaa gcttggcact ggccgtcggt 660
 ttacaacgtc gtgactggga aaacctggc gttacccaac ttaatgcct tgcagcacat 720
 ccccccttcg ccagctggcg taatagcgaa gaggcccgca caaaaagggt ttcccagtc 780
 acgacgttgt 790

<210> 16

<211> 789

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

<400> 16

cgactctaga ggatccccgg gtactttttg ttgtgtggaa ttgtgagcgg ataacaattt 60
 cacacaggaa acagctatga ccatgattac gaattcgagc tcggtacctg gggatccctt 120
 agagtcgacc tgcaggcatg caagcttggc actggccgtc gttttacaac gtctgacttg 180
 ggaaaaccct ggcgttacct aacttaatcg ccttgcagca catccccctt tcgccagctg 240
 gcgtaatagc gaagaggccc gcacaaaaag ggttttccca gtcacgacgt tgtaaaacga 300
 cggccagtgc caagcttgca tgcttgcagg tcgactctag aggatccccg ggtaccgagc 360
 tcgaattcgt aatcatggtc atagctgttt cctgtgtgaa attgttatcc gtcacaatt 420
 ccacacaaca aaaagtacct ggggatactc tagagtcgac ctgcaggcat gcaagcttgg 480

99

cactggccgt cgttttaciaa cgtcgtgact gggaaaaccc tttttgtgcg ggctcttctg 540
 ctattacgcc agctggcgaa agggggatgt gctgcaaggc gattaagtig ggtaacgcca 600
 gggttttccc agtcacgacg ttgtaaaacg acggccagtg ccaagcttgc atgcctgcag 660
 gtcgactcta gaggatcccc gggtagcgag ctggaattcg taatcatggt catagctgtt 720
 tctgtgtga aattgttatc cgctcacaat tccacacaac aaaaagtacc cggggatcct 780
 ctagagtcg 789

<210> 17

<211> 310

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
 synthesized sequence

<400> 17

gtggattcgc actcctcccg ctgacggga cctgcctcgt cgtctaaciaa cagtagtttc 60
 cggaagtgtt gataagatag gggcatttgg tggctctgtaa gcgggaggag tgcgaatcca 120
 cactccaaaa gataccaaat actccaaaac agttttctctt ccaaaagtaa ggcaggaaat 180
 gtgaaaccac aatagttgtc tgatttttag gcccatatta acattgacat agctgactac 240
 taattccctg gatgctgggt ctccaaaatt acgatctggt ttacatttc ctgccttact 300
 tttggaagag 310

<210> 18

<211> 465

1000

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized sequence

<400> 18

gtggattcgc actcctcccg ctgatcggga cctgcctcgt cgtctaacaa cagtagtttc 60
cggaagtgtt gataagatag gggcatttgg tggctctgtaa gcgggaggag tgcgaatcca 120
cactccaaaa gataccaaat actccaaaac agtttctctt ccaaaagtaa ggcaggaaat 180
gtgaaaccac aatagttgtc tgatttttag gcccatatta acattgacat agctgactac 240
taattccctg gatgctgggt ctcccaaatt acgatctggt ttacatttc ctgccttact 300
tttgggaagag aaactgtttt ggaglatttg gtatcttttg gagtgtggat tcgcactcct 360
cccgtttaca gaccaccaaa tgcacctatc ttatcaacac ttccggaaac tactgttgtt 420
agacgacgag gcaggctccg atcagcggga ggagtgcgaa tccac 465

<210> 19

<211> 20

<212> DNA

<213> M13mp18

<400> 19

ccggggatcc tctagagtcg

20

<210> 20

101

<211> 20

<212> DNA

<213> M13mpl8 mutant

<400> 20

ccgggggatcc tctagagtca

20

<210> 21

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 21

cgactctaga ggatccccgg tttttgttgt gtggaattgt gagcggat

48

<210> 22

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially

102

synthesized primer sequence

<400> 22

tgactctaga ggatccccgg tttttgttgt gtggaattgt gagcggat

48

<210> 23

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 23

cgtcgtgact gggaaaaccc tttttgtgcg ggctcttcg ctattac

47

<210> 24

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

103

<400> 24

actttatgct tccggctcgt a

21

<210> 25

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 25

gttgggaagg gcgatcg

17

<210> 26

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 26

tgttcctgat gcagtgggca gctttagtct gcggcgggtgt tctg

44

104

<210> 27

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 27

tgctgggtcg gcacagcctg aagctgacct gaaataacctg gcctg

45

<210> 28

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 28

tgcttgtggc ctctcgtg

18

<210> 29

105

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence

<400> 29

gggtgtggga agctgtg

17

1006